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10/559,657	12/05/2005	Mihoko Ohashi	Q91414	7239
23373 7590 12/04/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER HU, HENRY S				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/559,657

Applicant(s)

OHASHI ET AL.

Examiner

HENRY S. HU

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1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment of August 19, 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 3-19-2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. USPTO has received three things including: (A) **Amendment** filed on August 19, 2009, (B) **IDS** (1 page) filed on August 19, 2009, and (C) **Amendment** (non-compliant) filed on June 8, 2009, which are in response to Non-Final office action filed on March 11, 2009. With such an amendment, **Claim 1 is amended; Claims 3 and 7-15 are previously cancelled, Claim 2 is currently cancelled, while no new claim is added.** To be specific, parent **Claim 1** is now further amended to incorporate the limitation from its dependent Claim 2 so as to use a specific curable fluorine-containing resin (I) having a fluorine-content of 0.1 % by weight but no more than 35 % by weight. Certainly, the scope of parent Claim 1 is changed from previous one.

Applicants' two IDS (1 page each) are filed so far. This Application is a **371/PCT/JP04/007179** with a Japanese priority at June 5, 2003. **Claims 1 and 4-6** with only one independent claim (Claim 1) are now pending. An action follows. (See international search report in Applicants' priority paper **WO 2004/108772 A1 to Ohashi et al.**)

DETAILED ACTION

Response to Argument

2. Applicant's two arguments filed on August 19, 2009 and June 8, 2009 have been fully considered but they are not persuasive. The focal arguments related to the patentability will be addressed as follows: Such an amendment on parent **Claim 1** involves only one thing as: to incorporate the limitation from its dependent Claim 2 so as to use a specific curable fluorine-

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containing resin (I) having a fluorine-content of 0.1 % by weight but no more than 35 % by weight. Certainly, the scope of parent Claim 1 is changed from previous one.

After further consideration, previous 102(b) rejection by Ohmori is now modified to 102(b)/103(a) rejection. **Final office action is thereby applied.** An action follows.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The limitation of “twice-amended” parent **Claim 1** in present invention relates to a curable surface modifier comprising a curable fluorine-containing resin (I) which is soluble in general purpose solvents and has a fluorine-content of 0.1 % by weight but no more than 35 % by weight. The resin (I) comprises a fluorine-containing ethylenic polymer (IAB) having a moiety A and a moiety B in at least a part of the same side chain or different side chains thereof, or the resin (I) comprises a fluorine-containing ethylenic polymer (IA) having a moiety A in at least a part of its side chain and a fluorine-containing ethylenic polymer (IB) having a moiety B in at least a part of its side chain,

wherein the moiety A has, at its end, one or two or more polyfluoropolyether chains P represented by the formula (1).

Wherein the moiety B has one or more self-crosslinkable functional groups Y at its end, and the remaining ethylenic polymer moiety M (which is excluding the moiety A and the moiety B) contains a structural unit of the formula (2) or (3) as specified.

See other limitations of dependent Claims 4-6.

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6. **Claims 1 and 4-6 are rejected** under 35 U.S.C. **102(b)** as being anticipated by **or**, in the alternative, under 35 U.S.C. **103(a)** as obvious over **Ohmori** et al. (US 5,021,527 or its EP 333,083 A2) for the reasons set forth in paragraphs **6-12** of office action dated 3-11-2009 as well as the discussion below.

7. Current amendment on parent **Claim 1** involves only one thing as: to incorporate the limitation from its dependent Claim 2 so as to use a specific curable fluorine-containing resin (I) having a fluorine-content of 0.1 % by weight but no more than 35 % by weight. Certainly, the scope of parent Claim 1 is changed from previous one.

8. According to “**curable surface modifier (which is a composition)**” of current parent **Claim 1**, the “solvent-soluble” **polymer (resin IAB) or polymer blend mixture (resin IA and Resin IB)** will comprise **three** “moieties” including: (a) **moiety A** which has the structure of **polyfluoropolyether P (wherein X¹ may be H, F or Cl)**, (b) **moiety B** (which is a crosslinkable functional group), and (c) ethylenic polymer **moiety M** (to be connected with moiety A or moiety B as a pendent group in polymer structure). According to page **14** of specification, **M moiety in formula (3) can be an ester, an amide, a ketone or an anhydride**. Open language “comprising” is applied to both of the modifier and the resin (I).

9. As admitted by Applicants on page 7 of Remarks, **the maximum total number of perfluoropoly-ether (PFPE) units in Ohmori is only at most 6**. Based on two facts including: (A) **the integer 6 is actually located next to the integer 7**, and (B) at least in some

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cases Ohmori's total numbers for PFPE units are indeed not far away from the claimed range of 7-40 (for $n1 + n2 + n3 + n4$), 102/103 claim rejection is applied here.

10. With respect to the newly added limitation to use a specific curable fluorine-containing resin (I) having a fluorine-content of 0.1-35 % by weight, Ohmori would explicitly and/or implicitly cover such a claimed wide range. See working examples. Attention is directed to the fact that Ohmori's fluorocopolymers would comprise fundamentally the same claimed **three moieties (A), (B) and (M)**. See the detail discussion in paragraphs **8-10** of Non-Final office action filed on March 11, 2009.

11. **Ohmori is therefore "only" silent of using the claimed total numbers for PFPE units having formula (1).** In light of the fact that the prior art and the present invention recite **substantially identical fluorine-containing resin comprising the substantially identical PFPE as side chains**, a reasonable basis exists to believe that such a composition of the invention inherently possess the same properties as surface modifier. Since PTO does not have proper means to conduct experiments, the burden of proof is now shifted to Applicants to show otherwise. *In re Best*, 195 USPQ 430 (CCPA 1977).

It has been held that where applicant claims a composition in terms of function, property or characteristic where said function is not explicitly shown by the reference and where the examiner has explained why the function, property or characteristic is considered inherent in the prior art, it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ. *In re Best*, 195 USPQ 430, 433 (CCPA 1977); *In re Fitzgerald et al.*, 205 USPQ 594, 596 (CCPA 1980).

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12. In summary, previous 102(b) rejection by Ohmori is now modified to 102(b)/103(a) rejection. **Final office action is thereby applied.** Further amendment on parent Claim 1 is suggested.

Conclusion

13. Applicant's amendment **necessitated the new ground(s) of rejection presented in this Office action.** Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Dr. Henry S. Hu whose telephone number is (571) 272-1103.** The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Vasu Jagannathan, can be reached on (571) 272-1119. The **fax** number for the organization where this application or proceeding is assigned is **(571) 273-8300** for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peter D. Mulcahy/
Primary Examiner, Art Unit 1796

/Henry S. Hu/
Examiner, Art Unit 1796

November 30, 2009